

Sven Fund

Will Open Access Change the Game?

Hypotheses on the Future Cooperation of Libraries, Researchers, and Publishers

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Abstract: Open access has been the pivotal change in relations between libraries and academic publishers in the last decade. Not only has it introduced a potentially disruptive business model threatening the publishing ecosystem, but it has also put the individual researcher back into the fray. The long-term impact of the emerging pattern of different forms of publishing has been largely overlooked so far. It is about to change academic publishing from a producing, content-driven industry into a service industry, with significant consequences for all parties of the ecosystem.

Keywords: Open access; libraries; academic publishing; information science

Verändert Open Access den Markt?

Zusammenfassung: Open Access ist die zentrale Veränderung der letzten Dekade in den Beziehungen zwischen Bibliotheken und Wissenschaftsverlagen. Es bedeutete nicht nur das Aufkommen eines potenziell systemgefährdenden Geschäftsmodells, sondern rückte vor allem die Rolle von Wissenschaftlern im Publikationsprozess ins Zentrum der Beachtung. Die langfristigen Auswirkungen des neu aufkommenden Publikationsmodells sind bisher weitgehend unbeachtet geblieben. Es geht um den Wandel von einem produktions- und inhaltegetriebenen Gewerbe zu einem Teil der Serviceindustrie, und die Auswirkungen auf alle Akteure des Ökosystems werden gravierend sein.

Schlüsselwörter: Wissenschaftliches Publizieren; Open Access; Bibliothek

1 Open access in year 10 – What has it changed?

A triumvirate of political declarations started the open access (OA) debate: the Bethesda Statement, the Berlin Declaration, and the Budapest Declaration. Since then, ten years ago, there has been no international librarians' or

publishers' conference without OA being addressed by either side and in various ways. Despite this striking continuity, a significant change in perception has occurred – not only with one but with a majority of the players involved.

While librarians were and still are in their majority pro-OA for both budgetary as well as access reasons, they have come to understand that advocating OA is not the solution to all their problems. Furthermore, there are other ways and means to assure better access for patrons, and the challenges OA poses to the system of collection, building, and management of publications and publishing are manifold. Access and longtime preservation, it seems, are becoming increasingly contradictory in an OA world, if not with digital resources in general.

For a long time, publishers have fiercely been against a business model that seemed to impose a threat to an important revenue stream, particularly their major stream of profitability. It is no secret that most book programs of scholarly publishers by far lack the level of profitability provided by journal lists. In addition to the questionable value of putting a successful revenue stream at risk, some publishers realized early on that OA as a significant business model would not only have an impact on the products (or services, in case of OA) offered but also change the acquisition structure and patterns between libraries and publishers. Finally, and as a self-fulfilling prophecy, new business models in very established industry relations always offer new competitors, often with a different skill and mind set, an opportunity to enter the scene.

There is no doubt in either camp that OA has the potential to change the game in libraries dealing with publishers, and vice versa. Furthermore, it is evident that this will most likely lead to wanted and unwanted developments and consequences for different actors. To assess how much the underlying pattern of industry relations has changed over the past ten years, it seems advisable to develop a set of criteria to better grasp a potential tectonic shift.

2 Game changing – the criteria

Let us look at the prerequisites, process, and consequences of disruptive innovation. Breakthroughs in business are, by popular definition, the result of innovations, often in the technology realm. They often occur in a disruptive manner, indicating that they are both rapid in nature and frequently executed by new market entrants. The consequences are significant for the respective industry: they change either the supply side or the demand side dramatically so that even large, market-leading companies in the sector are forced to adapt to their way of doing business or even exit the sector altogether.

If we think of real-world examples from the media industry and others, the music business around the turn of the century and the PC/tablet market come to mind.

Until the early 2000s, the music business was mainly dominated by a handful of major companies that controlled the industry through their distribution power of physical products, mainly CDs. No doubt, their self-perceived power was considerably greater, as they brought artists to stardom through their artist and repertoire departments. With the advent of the internet, its growing bandwidth, and hence, the ability to distribute digital music files electronically, disruption occurred. Suddenly, consumers could emancipate themselves from the dictate of the CD, which combined hits that customers really wanted to buy with songs they had to take as part of the overall product. They were tired of paying for music they hardly listened to. The major companies were surprised, did not really react to customer demand they had not paid attention to, and consequently lost revenues. For over a decade, the global music market shrunk by as much as 40 % despite steep growth in digital sales. These sales have been mainly driven first by Apple's iTunes, a business model that is pretty conservative in its underlying structure. Then, in 2008, a completely new business model was introduced, one that has appealed to 40 million active users and questioned the mechanism of buying music altogether: Spotify.

The music industry example of disruptive innovation – actually even in two phases – helps assess OA's potential to change the game of scientific publishing.

3 The prerequisites

Roughly at the same time as the music industry – in fact, most segments of the media industry – scholarly publishing witnessed a new fundamental quest by its customers. Shocked and disgruntled by the journal crisis of the 1990s,

librarians and officials at research funding bodies started to contemplate alternatives to acquiring research information in the traditional manner. In addition to the formation of consortia as buying syndicates that helped achieve better discounts, the internet offered some advocates the opportunity to solve multiple issues at once: potentially lower cost, reduced dependence on the perceived cartel of academic publishers, better access for financially less powerful institutions, and high speed in disseminating content globally.

4 The process

In contrast to the economic as well as philanthropic (regarding the notion of access to financially strained institutions and countries) stimuli of OA, the first steps were rather political. The abovementioned statements issued in Bethesda, Berlin, and Budapest claim societal benefits, as for example stated in the Berlin Declaration: "Our mission of disseminating knowledge is only half complete if the information is not made widely and readily available to society."¹ Similarly, the signatories were more of a political group than the customers themselves.

In contrast to the disruption in the music industry, one could say that, in the beginning, OA did not succeed in gaining critical support from a large number of customers or patrons. In fact, till today, a large number of researchers see OA at least as a double-edged sword. While they appreciate the abovementioned benefits, they see not only major shortcomings, e.g., insufficient access to financial resources, but also concerns about the reputation of the OA journal they may publish in. It seems fair to say that, even today, a majority of researchers and probably librarians would not chose to finance a large number of OA publications if they had to reduce the spending for content acquisition by the same amount. Anecdotally, a majority of funding for OA today is added on to existing budgets, making the choice to go OA at least much easier.

5 The consequences

The set of consequences from the advent of OA is twofold. While publishers have, finally, responded in larger num-

¹ Berlin Declaration on Open Access to Knowledge in the Sciences and Humanities, <http://openaccess.mpg.de/286432/Berlin-Declaration> (last downloaded 2015-01-07).

bers and embraced OA as a business model, it still only represents a small fraction of library spending.

Established publishers have to take the blame for not having been really proactive to innovate their model from within. Players such as the Public Library of Science (PLOS), BioMedCentral (BMC), Versita (now De Gruyter Open), and Hindawi were required to develop a financially viable model to allow for gold OA. Those who were not smart enough to acquire such a business took too long to imitate the approach developed by those players.

While OA has been dramatically increasing in volume during the past decade, critical issues have developed around it. It has become more than obvious that not only is the publishing world being challenged by the new model but also the protagonist libraries. One could rightly argue that a major hurdle to OA's breakthrough in libraries today is neither the absence of publication channels, i.e., OA journals or books, nor the lack of cooperation on the publishers' ends. It is rather the imminent structure of the library system, decision-making mechanisms, and flow of money that limit the assertion of OA to a greater degree.

6 The impact on the system

The academic library system has developed a number of functions, and even in the age of digital products, these functions have not changed in their basic structure. The primary function of libraries for our purpose, i.e., giving access to information via the collection of relevant publications, has been performed in both worlds, the analog and the digital. While the ways and means of moderating access to information have changed considerably, the core function has not. With OA being managed in most cases by the library as the central information management hub on campuses, two major parameters change. Patrons expect from their librarian service with respect to indexing and delivery of the raw material of their research – information. This role is being challenged by general search tools that question the importance of cataloguing, and already today, the emphasis libraries place on this still core competence differs significantly by the degree in which libraries are advancing in digital terms.

On the other hand, with the rise of OA, librarians are becoming publishing advisors in an early-phase market that is characterized by a lack of transparency and very little standardization – not easy for a profession that is used to and has successfully implemented a high degree of standardization.

This change impacts libraries in very different ways. Research intensive institutions have to tackle a difficult

balancing act between their traditional role as information providers and their additional, new role as publication facilitators. Consequently, if OA is to be relevant to the respective research communities, a major shift in resources has to occur.

7 The essential problem of OA

Despite all progress and many conferences on the topic, OA is economically still a niche activity, and it is so for research funders, publishers, and libraries.² While barriers on the supply side have been removed – there are, by now, good quality OA journals for every research topic in the world – demand is the major issue. This is not only surprising, since the quest for OA started from the demand side, but it has also been identified in many research projects, most notably the Finch Report³ and the European Union's Horizon 2020⁴.

Funders around the world are experimenting with different forms of financial support for gold OA as well as political and legislative instruments to enforce green OA. However, there are some intellectual problems in this equation that make it difficult to solve the underlying problem of the transitional phase from traditional acquisition to OA.

First, the resources assigned for gold (and also green) OA so far represent only a very small fraction of the overall spending for research information. A significant increase in these financial resources would need considerable extra funding, which is unlikely to be provided by funders, and both the political will and its execution in an unprecedented manner.

Second, not only resources but also research output are not distributed evenly among the players within the system. It has been demonstrated that in this non-concurrent world, there are research-intensive universities or aca-

² Outsell's latest report available forecasts a total volume of open access of 336 m US-Dollars for 2015, representing approximately 1.3 of the total STM market. See Outsell (ed.): *Open Access: Market Size, Share, Forecast, and Trends*, Burlingame, Jan 2013, p. 14.

³ Accessibility, Sustainability, Excellence: How to Expand Access to Research Publications. Report of the Working Group on Expanding Access to Published Research Findings, <http://www.researchinfonet.org/wp-content/uploads/2012/06/Finch-Group-report-FINAL-VERSI ON.pdf> (last downloaded 2015-01-07).

⁴ European Commission, Directorate-General for Research and Innovation (ed.): *Investing in European success. Research and Innovation to boost growth and jobs in Europe*, doi:10.2777/34603 (last downloaded 2015-01-07).

dem institutions that would require many more financial resources to publish their researchers' papers all in OA.

Finally, it is highly unlikely that all academic journals or even scholarly publications will ever be completely OA. A look at the impact of technology on media industries demonstrates that no innovation within the last 50 years has completely replaced and eliminated previous ones. The vinyl LP is still around, as are CDs, radios, and TVs – even audiotapes are seeing a revival. Just from historical evidence, it seems highly unlikely that subscription journals will completely disappear, which leaves libraries with the permanent challenge to manage both, purchasing processes of content as well as consulting tasks. This duality that is to stay will create a new conflict of resources within academic institutions, and there are no mechanisms yet to address this conflict, as demonstrated by the discussion around double dipping. Double dipping is neither desired nor caused by publishers; it is an imminent problem of the academic publishing ecosystem.

8 The future of open access – three hypotheses

Open access has stirred up the academic information ecosystem. Both publishers and libraries need to redefine their roles, and some of them have already been quite successful in doing so. However, will OA change the game?

1. Libraries lobbying for OA have achieved a lot – they have forced publishers to adopt a business model they did not really favor in the beginning. They have to pay

attention now so that the economics of their system do not fall apart. Lobbying against hybrid OA, for example, is understandable but shortsighted if the alternative is the launch of a new OA journal next to each subscription publication. Costs will – on a high level – rise out of control, damaging the prospects of success.

2. More resources will be devoted to supporting OA in academic institutions, and the decreasing reservation in some disciplines is probably the most encouraging element in this respect.
3. Funding for OA will have to move from extra funds to the main budgets within institutions rather quickly. Almost everybody accepts an invitation for a free lunch by generous funders – the litmus test is the devotion of institutions' own significant resources to open access.

OA has not changed the game yet, and its disruptive potential has been rather fenced during the past years. While it has achieved remarkable change within the system, this has not led to a paradigmatic change, which is good news for researchers, librarians, and finally, for publishers.



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